

SOCIO ECONOMIC STATUS OF ORANGE FARMERS IN CHHINDWARA DISTRICT OF MADHYA PRADESH

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ABSTRACT

The present paper attempts to examine the social characteristics of orange farmers in Chhindwara District of Madhya Pradesh. The study was investigated in 20 villages located at Sausar and Pandhurna block of Chhindwara district. Data for the study was collected from a sample of 200 orange growers. The findings of the study revealed that 42.5 per cent farmers belong to young age, majority of respondents (94%) were male while only 06 % of respondents were female. Among the sample, about (29%) growers have high level of education, (75.5%) had 4 to 6 family members in research area, most of the orange farmers having less than 1 ha. landholding, 42 per cent had Medium training exposure, having 3 to 4 days training attend by farmers, 56.5 per cent had medium level of organizational participation. The annual family income of orange growers revealed that 67 percent was found in Rs. 100001 to 200000, followed by 27 per cent growers up to 100000 and 09 % orange farmers have above Rs. 200000 per annum. The study revealed that localite sources, 46 percent had medium level of contact in obtaining agricultural information, Personal cosmopolite channel, 51 percent had most of contact in obtaining agricultural information and mass media contact 45 % orange farmers had high level of contact in obtaining agricultural information.

KEYWORDS: Socio-Economic, Orange Growers, Technical Competency, Agricultural, Improved Production Technology & Agricultural Information

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INTRODUCTION

India is the second largest country in population in Asian Continent. Agriculture is the main occupation since ancient times. In Indian Economy, Agriculture and related sectors play crucial role. Horticulture is an important sub sector in Agriculture, which is rapidly growing and contributes 28 per cent share in the Indian Economy. Horticulture influences consumption habits and attitude of customers. People are leaning towards horticulture products instead of food grains due to variety of reasons. Thus horticulture sector is gaining significance in our economy and Agriculture as well.

In India, 11.35 per cent of the total cropped area cultivated under fruits and vegetables and it contributes more than 28 per cent to the GDP of agriculture and 52 per cent of export earnings in agriculture during 2013-14.

Fruits and vegetables contribute nearly 90 percent of total h production of fruits and vegetables. India is the second major producer of fruits and vegetables in the world and is the major producer in several fruits and vegetables, namely Mango, Banana, Papaya, Cashewnut, Arecanut, Potato and Okra. However, with regard to the nature fruits and vegetables it is not easy to make assessment of their production. These crops, especially vegetables

are grown in small areas, fields or in the backyard of the homes and do not have single harvesting in most of the cases which makes their assessment difficult. Many fruits and vegetables have multiple pickings in a one season. Similarly, many fruit trees are scattered, which do not count for assessment.

It is a matter of satisfying the consumers, we are second major producer of Vegetables and Fruits and it's very important in the global market. The different types of fruits are exported to the outside in India. Grapes covers the leading position in exports with 188.2 Thousand Tonnes valued at Rs. 1, 89,994.86 Lakhs. Other fruits which have attained important role in exports are Banana and Mango. Fresh vegetable (e.g. Onion, Peas and Potato) exports have been on the rise. (Horticultural Statistics at a Glance 2018).

The development achieved in the horticultural cultivation is an expressive of the fact that there is growing demand for fruits and vegetables. The past experiences have been rewarding for enhanced production from the inputs. Availability of timely robust information in horticultural cultivation will surely improve the economical situations of Indian citizens by providing self-reliance besides ecology (Horticultural Statistics at a Glance 2018).

The status of fruits and vegetables in the country has become very promising. The percentage share of fruits and vegetables in Agriculture sector has become 33%. Under the comprehension of Agriculture & related activities, the share of plan outlay for fruits and vegetables which was 3.9% during IX Plan, has increased to 4.6% during the XII Plan.

India has supported increase in fruits and vegetables output over the few years ago. For getting high production, the growth has been made important in the area where there is an increase yield. Over the last ten years, the area under horticultural growth by 2.6% per annum and annual output increased by 4.8%. During 2017-18, the production of fruits and vegetables was 311.71 Million Tonnes from an area of 25.43 Million Hectares. The production of vegetables has increased from 101.2 Million Tonnes to 184.40 Million Tonnes since 2004-05 to 2017-18 and production of fruits has increased from 50.9 Million Tonnes to 97.35 Million Tonnes since 2004-05 to 2017-18. In 2017-18, the total fruits and vegetables production was the highest in case of Uttar Pradesh (392.48 Lakh Tonnes) followed by West Bengal (324.2 Lakh Tonnes). The total production of fruits is highest in case of Andhra Pradesh (152.15 Lakh Tonnes) followed by Maharashtra (117.28 Lakh Tonnes). (Horticultural Statistics at a Glance 2018).

The Mandarin Orange (*Citrus reticulata*) belongs to Rutaceae family and it is very important fruit crop due to rich source of vitamin "C". In world, it is cultivated over an area of 7.9 million ha with a production of about 3.84 million metric tons of fruit. India ranks ninth among major orange producing country and it contains 3% to the world's total fruits production. Major Orange producing states are Punjab, Madhya Pradesh, Maharashtra, Rajasthan, Assam, Karnataka, West Bengal, and Nagaland. In India, total area under orange is 330 thousand ha. with the production of 3431 thousand million tones and productivity of 10.4 mt/ha (Data base on Horticulture 2014). Punjab is the major orange producing state in production. Maharashtra is the leading area for Orange fruit which is 105.47 thousand ha with production of 716.07 million tonnes (data base of horticulture board 2014).

During 2017-18, around 15840.48 MT of fresh oranges were exported to Bangladesh, Nepal, UAE, Qatar, Oman, Kuwait, Saudi Arabia, United Kingdom, Netherland, Singapore, Spain and Maldives etc. (Horticultural at a Glance 2018).

The area under citrus in Madhya Pradesh is estimated to be 1, 1 5,488 ha of which 96,233 ha is under mandarin oranges (*Citrus reticulata*), 14,666 ha under acid lime (*Citrus aurantifolia*) and 4,589 ha under sweet oranges (*Citrus sinensis*), (Ministry of Agriculture and Farmers Welfare Department of Agriculture, Cooperation and Farmers Welfare

Horticulture Area and Production Info System 2017-18). Out of 1, 15,488 ha under citrus cultivation in Madhya Pradesh.

The main citrus fruits in Madhya Pradesh are mandarin orange (Santra), acid lime and sweet orange. Citrus fruits are grown in 49 out of 51 districts of the state. The area under mandarin orange, sweet orange and acid lime in Madhya Pradesh is 1,15,488 ha with the production of 13,50,278 MT. The average productivity is estimated to be 11.69 metric tonnes/ha.

Competencies are characterized as the capacity to perform explicit assignments. They are the basic information, aptitudes, capacities, character characteristics and expertise that outcomes in powerful assignment satisfaction (Langbert, 2000, Mulder, 2001a, 2001b)

Technical competence is shown when a farmers can choose and join productive farmings. An undertaking or blend of endeavors is gainful when the all-out receipts exceed complete installments, allot and use creation factors effectively. Creation factors are productively distributed when the estimation of the negligible physical item is equivalent to the minor factor cost. Productively used when the least conceivable measure of assets is utilized to get the best degree of yield, embrace and utilize present day creation practices and strategies. Distinguish exercises, tasks, materials, gear and individuals expected to attempt the exercises, activities, set time and cost targets and recognize creation dangers.

METHODOLOGY

In the current investigation, analytical research configuration was used. Investigative research, then again, the scientist needs to utilize realities or data effectively accessible and critical these to make a basic assessment of the material. In this study, Madhya Pradesh state was selected purposively because Madhya Pradesh is second leading producer of orange and accounts for 21% of the production of orange production in the country with productivity of 13.58 T/ha. (National Horticulture Board, 2018). Out of 53 districts of Madhya Pradesh, Chhindwara District was selected purposely because Chhindwara major orange producing district in Madhya Pradesh. Orange is the major growing fruit as compared to other fruits in the district. It occupied 24500 ha area with the production of 485550 metric tons. (District Horticulture Department, 2019). Orange is for the most part grown in 7 blocks of Chhindwara area viz. Mukhed, Chourai, Parasia, Bichhua, Sausar, and Pandurna. The Pandhurna and Sausar squares were chosen purposively for the examination due to the first most orange producing (250500 mt) and second most elevated orange producing (155000mt). A list of orange producing villages of Pandhurna and Sausar blocks were set up with the assistance of Block Technology Manager and Rural Horticultural Extension Officer and out of which 10-10 villages were chosen randomly from Pandhurna and Sausar blocks. A list of orange producing growers of each chose villages, were set up with the assistance of RHEO and ATMA Professionals. Orange cultivators were chosen by utilizing random sampling techniques. The all out number of chosen orange growers were 200. The pre-tested interview schedule was used for collection of data and the data analyses by using appropriate statistical tools such as percentage, mean and standard deviation.

RESULT AND FINDINGS

The Socio Economic Profile of Orange Growers

Age

The number of years that the orange growers had finished at the time of interview was considered as his/her age. According to the proposal of Govt. of India, age group was divided into following classifications:

Table 1: Distribution of Orange Growers according to their age n= 200

Serial No.	Age Categories	Frequency	Percentage
1	Young (Less than 36)	52	26
2	Middle Age (36 to 50)	85	42.5
3	Old Age (Above 50)	63	31.5
	Total	200	100

The information of the Table 1 showed that out of the 200 orange farmers, 26 percent were in youth age category, 42.5 percent are with middle age category and 31.5 percent belongs to old age.

In this manner, it might be presumed that limit of orange farmers (42.5 %) belong to middle age group followed by 31.50 per cent belong to old age and (26 %) are in young age group. The middle age growers have family duty, responsibility and more involvement in orange production technology. Sunikumar (2004), Moulasab (2004), Jadav (2005), Nagesh (2006), Phukan et al (2017), Saryam et al. (2017), Singh et al. (2017), Dound et al. (2018), and Mandal and Jirli (2018) observed similar findings.

Gender

Table 2: Distribution Orange Growers according to their Gender n= 200

S. No.	Category of Gender	Frequency	Percentage
1	Male	188	94
2	Female	12	06
	Total	200	100

It is found that from the Table 2, 94% were male while just 06 % of respondents were female. This may be due to the reason that male has greater duty and taking choices for their income earning.

Level of Education

Table 3: Distribution Orange Growers according to their Level of Education n= 200

S. No.	Category	Frequency	Percentage
1	Illiterate	5	2.5
2	Functionally Literate	15	7.5
3	Primary School	28	14
4	Middle School	29	14.50
5	High School	59	29.50
6	Intermediate	31	15.50
7	Graduate and above	33	16.50
	Total	200	100

The Table No. 3 showed that the most of the growers (29.5%) attained high school education, followed by graduate and above (16.5%), Intermediate (15.5%), middle school education (14.5%), Primary level (14 %), functionally literate (7.5 %) and Illiterate 2.5 per cent. Out of 200 respondents. it could be possible reason that the most of the growers have involved in farming because they are interested to adopt new technology for producing quality fruits and grain. The findings are in line with the findings of Vijayakumar (1997), Manay and Farzana (2000), Nagesh (2006), Raghavendra (2007), Singh *et al.* (2017), Saryam *et al.* (2017) and Mandal and Jirli (2018).

Family Size

Table 4: Distribution Orange Growers according to their Family Size n= 200

S. No.	Family Size	Frequency	Percent
1	Small (Up to 3 members)	23	11.5
2	Medium (4 to 6 members)	151	75.5
3	Large (Above 6 members)	26	13
	Total	200	100

Mean= 5.1, SD= 2.1

The Table 4 demonstrated that larger part of orange farmers (75.5%) had Medium family size, having 4 to 6 members, while 13 percent orange farmers had a place with large family size, having in excess of 6 members. The more number of members in the families may be because of dominancy of joint family framework in the research area. The findings are in line with the findings of Singh et al. (2017), Singh et al. (2017), Mandal and Jirli (2018), Kumar et al. (2018) and Kausadikar et al. (2019).

Size of Landholding

Table 5: Distribution Orange Growers according to their size of Landholding n= 200

S. No.	Category	Frequency	Percentage
1	Marginal (below 1 ha.)	64	32
2	Small (1.1 to 2.0 ha.)	53	26.5
3	Semi- Medium (2.1 to 4 ha)	60	30
4	Medium (4.1 to 10 ha.)	21	10.5
5	Large (above 10)	2	1
	Total	200	100

Table 5 found that 32 percent of orange farmers were having under 1 ha. of land, along these lines had a place with marginal farmers classification. Orange farmers had a place with small, Semi-medium and medium classes were 26.5 percent, 30 percent and 10.5 percent, respectively. Information likewise shows that only one percent of orange producers were having large land holding. Accordingly, it might be presumed that greater part of the respondents were marginal farmers having under 1 ha. Of land. This is because of the way that in Chhindwara area, per capita agricultural land is nearly less. The other explanation might be the small family framework in Chhindwara district. The findings are in line with the findings of Gowda (2005), Jadav (2005), Gotyal (2007), Singh and Mankar (2007), Gautamet al. (2014), Singh et al. (2017), Saryam et al. (2017) and Mandal and Jirli (2018).

Subsidiary Occupation

Table 6: Distribution Orange Growers according to their Subsidiary Occupation n= 200

Serial No.	Subsidiary Occupation	Frequency	Percentage
1	Agriculture	174	87
2	Services	06	03
3	Business	20	10
	Total	200	100

The above Table 6 indicated that out of 200 respondents, 174 (87%) were dependent upon agriculture for additional income, while 20 (10%) orange growers had their own business and 03 % orange growers fell in category service. The possible reason might be that the most of the growers get the income from farming. The findings are in line with the findings of Singh et al. (2017), Wankhede et al. (2017), Singh et al. (2017), Mandal and Jirli (2018), Doundet al. (2018) and Kumar et al. (2018).

Annual Family Income

Table 7: Distribution Orange Growers according to their Annual Family Income n= 200

S. No.	Income Categories (Rs.)	Frequency	Percentage
1	Low Income (Less than 100001)	48	24
2	Medium Income (100001 to 200000)	134	67
3	High Income (Above 200000)	18	09
	Total	200	100

The Table 7 found that the yearly income of the orange farmers were 67 percent and they were found in the medium class of 100001 to 200000 followed by 24 percent producers in low pay classification (less than 100000) and 09 % orange producers in high pay class (Above 200000). The conceivable explanation may be that the vast majority of the cultivators get the income from farming mainly in orange production. Currently, the vast majority of the farmers have marginal to small landholding. The findings are in line with the findings of Kiran (2003), Gautamet *et al.* (2014), and Wankhede *et al.* (2017).

Training Exposure

Table 8: Distribution Orange Growers according to their Training Exposure n=200

Serial No.	No. of Days training attended by Farmers	Frequency	Percentage
1	Low (Up to 2 days)	49	24.5
2	Medium (3 to 4 days)	84	42
3	High (Above 4 days)	67	33.5
	Total	200	100

The Table 8 showed that majority of orange growers (42%) had Medium training exposure, having 3 to 4 days training attend of farmers, while 33.5 per cent orange growers had high training exposure, having training more than above 4 days and 24.5 per cent had low training exposure, having up to 2 days training attend by the farmers. The growers participated in training in block and district level because of the work in the field was not affected this may be possible reason. The findings are in line with the findings of Singh and Singh (2017).

Organizational Participation

**Table 9: Distribution Orange Growers according to Organizational Participation
n= 200**

Serial No.	Level of Organizational Participation	Frequency	Percentage
1	Low (Up to 1)	65	32.5
2	Medium (2 to 3)	113	56.5
3	High (Above 4)	22	11
	Total	200	100

Mean= 2.2, SD= 1.3

The information introduced in Table 9 found that dominant part of the farmers (56.5 percent) had medium degree of organizational participation, followed by 32.5 and 11 percent low and significant level of organizational participation respectively. The farmers were basically included as individuals from social samitee and panchayat in the town as this might be the explanation. The findings are in line with the findings of Ramanna *et al.* (2000, Atul (2008) and Singh *et al.* (2017).

Extension Contact

Table 10.1: Distribution of Orange Growers according to Utilization of Personal Localite Channels
n=200

S. No.	Source	Regular	%	Occasionally	%	Never	%
1	Family members	171	85.5	24	12	5	2.5
2	Friends	133	66.5	64	32	3	1.5
3	Relatives	78	39	112	56	10	5
4	Progressive Farmers	135	67.5	48	24	17	8.5
	Total					200	100

It is information from Table 10.1 that extension methods from personal localite sources, family members, friends, relatives and progressive farmers were regularly contacted as sources of information expressed by 85.5, 66.5, 39 and 67.5 per cent of respondents respectively. Whereas, family members (12 percent), friends (32 percent), relatives (56 percent) and progressive farmers (24 percent) were occasionally contacted for obtaining information about orange production technology and agriculture and family members (2.5 percent), friends (1.5 percent), relatives (5 percent) and progressive farmers (8.5 percent) were never contacted for obtaining information about orange production technology and farming. The findings are in line with the findings of Wagdhare *et al.* (1998), Kumar (1998).

Table 10.2: Distribution of Orange Growers according to Utilization of Personal Localite Channels
n=200

Serial No.	Categories	Frequency	Percentage
1	Low (Up to 4.74)	53	26.5
2	Medium (4.75 to 7.98)	95	46
3	High (Above 7.99 score)	55	27.5
	Total	200	100

Mean= 6.36, SD= 1.62

It is evident from Table 10.2 that information sources of orange farmers from localite sources, most of the orange farmers (46 percent) had medium class of contact in obtaining agricultural information followed by 27.5 percent and 26.5 percent majority of the respondent high and low level of contact in obtaining agricultural information respectively. The findings are in line with the findings of Ramanna *et al.* (2000) and Sriram and Palaniswamy (2000) and Singh *et al.* (2017).

Table 10.3: Distribution of Orange Growers according to Utilization of Personal Cosmopolite Channel
n=200

S. No.	Source	Regular	%	Occasionally	%	Never	%
1	RHEO	121	60.5	73	36.5	6	3
2	RAEO	133	66.5	65	32.5	2	1
3	ADO	136	68	63	31.5	1	0.5
4	Agril. Scientist	73	36.5	97	48.5	30	15
	Total					200	100

In Table No.10.3, personal cosmopolite sources of information orange farmers were regularly contacting Agriculture Development officer (68 percent), Rural Agriculture Extension officer (66.5 percent), Rural Horticulture Extension officer (60.5 percent) and Agricultural Scientist (36.5 percent). Whereas, orange growers were occasionally had contact with Rural Horticulture Extension officer (36.5 percent), Rural Agriculture Extension officer (32.5 percent), Agriculture Development officer (31.5 percent), and Agricultural Scientist (48.5 percent) and never made contact with Rural Horticulture Extension officer (3 percent), Rural Agriculture Extension officer (1 percent), Agriculture Development officer (0.5 percent), and Agricultural Scientist (15 percent) for the adoption of orange production technology. Jyothi (2000) was the similar study.

Table 10.4: Distribution of Orange Growers according to Utilization of Personal Cosmopolite Channel
n=200

Serial No.	Categories	Frequency	Percentage
1	Low (Up to 4.35 Score)	47	23.5
2	Medium (4.36 to 7.77 score)	51	25.5
3	High (Above 7.78)	102	51
	Total	200	100

Mean= 6.06, SD= 1.71

In the Table No. 10.4, Personal cosmopolite channel, a large portion of the farmers (51 percent) had significant level of contact for getting horticultural information followed by 25.5 percent and 23.5 larger part of the respondent had medium and low degree of reached with acquiring orange production and farming information. The findings are in line with the findings of Singh *et al.* (2017).

Table 10.5: Distribution of Orange Growers according to utilization of Mass Media Contact
n=200

S. No.	Source	Regular	%	Occasionally	%	Never	%
1	News	82	41	101	50.5	17	8.5
2	Film regarding fruit farming	30	15	156	78	14	7
3	Radio	51	25.5	100	50	49	24.5
4	Television	126	63	72	36	2	1
5	Krishi Melas	103	51.5	89	44.5	8	4
6	Exhibition	87	43.5	102	51	11	5.5
7	Magazine, Leaflets, Bulletins	54	27	107	53.5	39	19.5
8	Folk Media	18	9	62	31	120	60
9	Smart Phone	76	38	61	30.5	63	31.5
10	Internet	31	15.5	54	27	115	57.5

It is evident from Table 10.5, that information sources of respondents from mass media exposure of information respondents were regularly in contact with Television (63 percent), Krishi melas (51.5 percent), Exhibition (43.5 percent), News (41 percent), Smart Phone (38 percent), Magazine, Leaflets, Bulletins (27 percent), Radio (25.5 percent), Internet (15.5 percent) Film regarding fruit farming (15 percent) and Folk media (9 percent) for contacted with obtaining orange production and agricultural information. With regard to occasional contact with Film regarding fruit farming (78 percent), Magazine, Leaflets, Bulletins, Exhibition (51 percent), News (50.5 percent), Radio (50 percent), Krishi melas (44.5 percent), Television (36 percent), Folk media (31 percent) Smart Phone (30.5 percent) and Internet (27 percent) for contacted with obtaining orange production and agricultural information. Whereas, never contacted with Folk media (60 percent), Internet (57.5 percent), Smart Phone (31.5 percent), Radio (24.5 percent), Magazine, Leaflets, Bulletins, Exhibition (19.5 percent), News (8.5 percent) and Film regarding fruit farming (7 percent) with obtaining agricultural information. The findings are in line with the findings of Sunilkumar (2004) Singh and Jirli (2011) and Gautam *et al.* (2014).

Table 10.6: Distribution of Orange Growers according to Utilization of Mass Media Contact
n=200

Serial No.	Categories	Frequency	Percentage
1	Low (Up to 7.41 Score)	35	17.5
2	Medium (7.42 to 14.61)	75	37.5
3	High (Above 14.62)	90	45
	Total	200	100

Mean= 11.01, SD= 3.60

In the Table No.10.6, Mass media contact, greater part of the orange farmers (45 percent) had high level of contact for getting agricultural information followed by 37.5 percent and 17.5 percent share of the respondent had medium and low degree of contact for acquiring orange production innovation knowledge and horticultural information separately. The findings are in line with the findings of Singh *et al.* (2017).

CONCLUSIONS

The socio-economic characteristics of growers are important for making better policy. It provides the best approaches for identifying the actual condition of the social system. On the basis of the findings, it is suggested that social and financial status of the growers can be improved by imparting technical knowledge, skills training to orange growers, increasing their education level and increasing their organizational participation, training exposure and also increased the extension contacts.

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